What Is Claimed Is:

1. A radiation-curable inner primary coating composition for an optical glass fiber comprising an oligomer having at least one functional group capable of polymerizing under the influence of radiation, said composition after radiation cure having the combination of properties of:

(a) a fiber pull-out friction of less than 20 g/mm at stripping temperature;

(b) a crack propagation of greater than 1.0 mm at stripping temperature;

(c) a glass transition temperature of below 10°C; and

(d) sufficient adhesion to said glass fiber to prevent delamination in the presence of moisture and during handling.

2. A system for coating an optical glass fiber comprising a radiation-curable inner primary coating composition and a radiation-curable outer primary coating composition wherein:

said inner primary coating composition comprises an oligomer having at least one functional group capable of polymerizing under the influence of radiation, said inner primary coating composition after radiation cure having the combination of properties of:

(a) a fiber pull-out friction of less than 40 g/mm at stripping temperature;

(b) a crack propagation of greater than 1.0 mm at stripping temperature;

(c) a glass transition temperature of below 10°C; and

(d) sufficient adhesion to said glass fiber to prevent delamination in the presence of moisture and during handling; and

said outer primary coating composition comprises an oligomer having at least one functional group capable of polymerizing under the influence of radiation, said outer

primary coating composition after radiation cure having the combination of properties of:

(e) a glass transition temperature of above 40°C; and

(f) a modulus of elasticity of between about 10 MPa to about 40 MPa at stripping temperature;

and wherein the ratio of the change in length of said inner primary coating composition, after radiation cure, to the change in length of said outer primary coating composition, after radiation cure, is less than 2 when said cured compositions are heated from 25°C to stripping temperature.

3. A coated optical glass fiber, coated with at least an inner primary coating and an outer primary coating, wherein

said inner primary coating is comprised of a radiation cured polymeric material having the combination of properties of:

(a) a fiber pull-out friction of less than 40 g/mm at stripping temperature;

(b) a crack propagation of greater than 1.0 mm at stripping temperature;

(c) a glass transition temperature of below 10°C; and

(d) sufficient adhesion to said glass fiber to prevent delamination in the presence of moisture and during handling; and

said outer primary coating is comprised of a radiation cured polymeric material having the combination of properties of:

(e) a glass transition temperature of above 40°C; and

(f) a modulus of elasticity of between about 10 MPa to about 40 MPa at stripping temperature;

and wherein the ratio of the change in length of said inner primary coating composition, after radiation cure, to the change in length of said outer primary coating composition,

after radiation cure, is less than 2 when said cured compositions are heated from 25°C to stripping temperature.

4. A ribbon assembly comprising:

a plurality of coated optical glass fibers, at least one optical glass fiber coated with at least an inner primary coating and an outer primary coating, and optionally an ink coating; and

a matrix material bonding said plurality of coated optical glass fibers together,

wherein:

said inner primary coating is comprised of a radiation cured polymeric material having the combination of properties of:

(a) a fiber pull-out friction of less than 40 g/mm at stripping temperature;

(b) a crack propagation of greater than 1.0 mm at stripping temperature;

(c) a glass transition temperature of below 10°C; and

(d) sufficient adhesion to said glass fiber to prevent delamination in the presence of moisture and during handling; and

said outer primary coating is comprised of a radiation cured polymeric material having the combination of properties of:

(e) a glass transition temperature of above 40°C; and

(f) a modulus of elasticity of between about 10 MPa to about 40 MPa at stripping temperature;

and wherein the ratio of the change in length of said inner primary coating composition, after radiation cure, to the change in length of said outer primary coating composition, after radiation cure, is less than 2 when said cured compositions are heated from 25°C to stripping temperature.

5. A radiation-curable inner primary coating composition for an optical glass fiber comprising an oligomer having at least one functional group capable of polymerizing under the influence of radiation wherein said composition, after radiation cure, having the combination of properties of:

(a) a fiber pull-out friction of less than 20 g/mm at 90°C;

(b) a crack propagation of greater than 1.0 mm at 90°C;

(c) a glass transition temperature of below 10°C; and

(d) adhesion to glass of at least 12 g/in when conditioned at 95% relative humidity.

6. A system for coating an optical glass fiber comprising a radiation-curable inner primary coating composition and a radiation-curable outer primary coating composition wherein:

said inner primary coating composition comprises an oligomer having at least one functional group capable of polymerizing under the influence of radiation, said inner primary coating composition, after radiation cure, having the combination of properties of:

(a) a fiber pull-out friction of less than 40 g/mm at 90°C;

(b) a crack propagation of greater than 1.0 mm at 90°C;

(c) a glass transition temperature of below 10°C; and

(d) adhesion to glass of at least 12 g/in when conditioned at 95% relative humidity; and

said outer primary coating composition comprises an oligomer having at least one functional group capable of polymerizing under the influence of radiation, said outer primary coating composition, after radiation cure, having the combination of properties of:

(e) a glass transition temperature of above 40°C; and

(f) a modulus of elasticity of between about 10 MPa to about 40 MPa at 100°C;

and wherein the ratio of the change in length of said inner primary coating composition, after radiation cure, to the change in length of said outer primary coating composition, after radiation cure, is less than 2 when said cured compositions are heated from 25°C to stripping temperature.

7. A coated optical glass fiber, coated with at least an inner primary coating and an outer primary coating, wherein

said inner primary coating is comprised of a radiation cured polymeric material having the combination of properties of:

(a) a fiber pull-out friction of less than 40 g/mm at 90°C;

(b) a crack propagation of greater than 1.0 mm at 90°C;

(c) a glass transition temperature of below 10°C; and

(d) adhesion to glass of at least 12 g/in when conditioned at 95% relative humidity; and

said outer primary coating is comprised of a radiation cured polymeric material having the combination of properties of:

(e) a glass transition temperature of above 40°C; and

(f) a modulus of elasticity of between about 10 MPa to about 40 MPa at 100°C;

and wherein the ratio of the change in length of said inner primary coating composition, after radiation cure, to the change in length of said outer primary coating composition, after radiation cure, is less than 2 when said cured compositions are heated from 25°C to stripping temperature.

8. A ribbon assembly comprising:

a plurality of coated optical glass fibers, at least one optical glass fiber coated with at least an inner primary coating and an outer primary coating, and optionally an ink coating; and

a matrix material bonding said plurality of coated optical glass fibers together,

wherein:

said inner primary coating is comprised of a radiation cured polymeric material having the combination of properties of:

(a) a fiber pull-out friction of less than 40 g/mm at 90°C;

(b) a crack propagation of greater than 1.0 mm at 90°C;

(c) a glass transition temperature of below 10°C; and

(d) adhesion to glass of at least 12 g/in when conditioned at 95% relative humidity; and

said outer primary coating is comprised of a radiation cured polymeric material having the combination of properties of:

(e) a glass transition temperature of above 40°C; and

(f) a modulus of elasticity of between about 10 MPa to about 40 MPa measured at 100°C;

and wherein the ratio of the change in length of said inner primary coating composition, after radiation cure, to the change in length of said outer primary coating composition, after radiation cure, is less than when said cured compositions are heated from 25°C to stripping temperature.

9. A radiation-curable inner primary coating composition for an optical glass fiber comprising an oligomer having at least one functional group capable of polymerizing under the influence of radiation, said composition after radiation cure having the combination of properties of:

(a) a fiber pull-out friction of less than 20 g/mm at stripping temperature;

(b) a crack propagation of greater than 0.7 mm at stripping temperature;

(c) a glass transition temperature of below 0°C; and

(d) sufficient adhesion to said glass fiber to prevent delamination in the presence of moisture and during handling.

10. A system for coating an optical glass fiber comprising a radiation-curable inner primary coating composition and a radiation-curable outer primary coating composition wherein:

said inner primary coating composition comprises an oligomer having at least one functional group capable of polymerizing under the influence of radiation, said inner primary coating composition after radiation cure having the combination of properties of:

(a) a fiber pull-out friction of less than 40 g/mm at stripping temperature;

(b) a crack propagation of greater than 0.7 mm at stripping temperature;

(c) a glass transition temperature of below 0°C; and

(d) sufficient adhesion to said glass fiber to prevent delamination in the presence of moisture and during handling; and

said outer primary coating composition comprises an oligomer having at least one functional group capable of polymerizing under the influence of radiation, said outer primary coating composition after radiation cure having the combination of properties of:

(e) a glass transition temperature of above 40°C; and

(f) a modulus of elasticity of greater than 25 MPa at stripping temperature;

and wherein the ratio of the change in length of said inner primary coating composition, after radiation cure, to the change in length of said outer primary coating composition, after radiation cure, is less than 2 when said cured compositions are heated from 25°C to stripping temperature.

11. A coated optical glass fiber, coated with at least an inner primary coating and an outer primary coating, wherein

said inner primary coating is comprised of a radiation cured polymeric material having the combination of properties of:

(a) a fiber pull-out friction of less than 40 g/mm at stripping temperature;

(b) a crack propagation of greater than 0.7 mm at stripping temperature;

(c) a glass transition temperature of below 0°C; and

(d) sufficient adhesion to said glass fiber to prevent delamination in the presence of moisture and during handling; and

said outer primary coating is comprised of a radiation cured polymeric material having the combination of properties of:

(e) a glass transition temperature of above 40°C; and

(f) a modulus of elasticity of greater than 25 MPa at stripping temperature;

and wherein the ratio of the change in length of said inner primary coating composition, after radiation cure, to the change in length of said outer primary coating composition, after radiation cure, is less than 2 when said cured compositions are heated from 25°C to stripping temperature.

12. A ribbon assembly comprising:

a plurality of coated optical glass fibers, at least one optical glass fiber coated with at least an inner primary coating and an outer primary coating, and optionally an ink coating; and

a matrix material bonding said plurality of coated optical glass fibers together,

wherein:

said inner primary coating is comprised of a radiation cured polymeric material having the combination of properties of:

(a) a fiber pull-out friction of less than 40 g/mm at stripping temperature;

(b) a crack propagation of greater than 0.7 mm at stripping temperature;

(c) a glass transition temperature of below 0°C; and

(d) sufficient adhesion to said glass fiber to prevent delamination in the presence of moisture and during handling; and

said outer primary coating is comprised of a radiation cured polymeric material having the combination of properties of:

(e) a glass transition temperature of above 40°C; and

(f) a modulus of elasticity of greater than 25 MPa at stripping temperature;

and wherein the ratio of the change in length of said inner primary coating composition, after radiation cure, to the change in length of said outer primary coating composition, after radiation cure, is less than 2 when said cured compositions are heated from 25°C to stripping temperature.

13. A radiation-curable inner primary coating composition for an optical glass fiber comprising an oligomer having at least one functional group capable of polymerizing under the influence of radiation wherein said composition, after radiation cure, having the combination of properties of:

(a) a fiber pull-out friction of less than 20 g/mm at 90°C;

(b) a crack propagation of greater than 0.7 mm at 90°C;

(c) a glass transition temperature of below 0°C; and

(d) adhesion to glass of at least 5 g/in when conditioned at 95% relative humidity.

14. A system for coating an optical glass fiber comprising a radiation-curable inner primary coating composition and a radiation-curable outer primary coating composition wherein:

said inner primary coating composition comprises an oligomer having at least one functional group capable of polymerizing under the influence of radiation, said inner primary coating composition, after radiation cure, having the combination of properties of:

(a) a fiber pull-out friction of less than 40 g/mm at 90°C;

(b) a crack propagation of greater than 0.7 mm at 90°C;

(c) a glass transition temperature of below 0°C; and

(d) adhesion to glass of at least 5 g/in when conditioned at 95% relative humidity; and

said outer primary coating composition comprises an oligomer having at least one functional group capable of polymerizing under the influence of radiation, said outer primary coating composition, after radiation cure, having the combination of properties of:

(e) a glass transition temperature of above 40°C; and

(f) a modulus of elasticity of greater than 25 MPa at 100°C;

and wherein the ratio of the change in length of said inner primary coating composition, after radiation cure, to the change in length of said outer primary coating composition, after radiation cure, is less than 2 when said cured compositions are heated from 25°C to stripping temperature.

15. A coated optical glass fiber, coated with at least an inner primary coating and an outer primary coating, wherein

said inner primary coating is comprised of a radiation cured polymeric material having the combination of properties of:

(a) a fiber pull-out friction of less than 40 g/mm at 90°C;

(b) a crack propagation of greater than 0.7 mm at 90°C;

(c) a glass transition temperature of below 0°C; and

(d) adhesion to glass of at least 5 g/in when conditioned at 95% relative humidity; and

said outer primary coating is comprised of a radiation cured polymeric material having the combination of properties of:

(e) a glass transition temperature of above 40°C; and

(f) a modulus of elasticity of greater than 25 MPa at 100°C;

and wherein the ratio of the change in length of said inner primary coating composition, after radiation cure, to the change in length of said outer primary coating composition, after radiation cure, is less than 2 when said cured compositions are heated from 25°C to stripping temperature.

16. A ribbon assembly comprising:

a plurality of coated optical glass fibers, at least one optical glass fiber coated with at least an inner primary coating and an outer primary coating, and optionally an ink coating; and

a matrix material bonding said plurality of coated optical glass fibers together,

wherein:

said inner primary coating is comprised of a radiation cured polymeric material having the combination of properties of:

(a) a fiber pull-out friction of less than 40 g/mm at 90°C;

(b) a crack propagation of greater than 0.7 mm at 90°C;

(c) a glass transition temperature of below 0°C; and

(d) adhesion to glass of at least 5 g/in when conditioned at 95% relative humidity; and

said outer primary coating is comprised of a radiation cured polymeric material having the combination of properties of:

(e) a glass transition temperature of above 40°C; and

(f) a modulus of elasticity of greater than 25 MPa measured at 100°C;

and wherein the ratio of the change in length of said inner primary coating composition, after radiation cure, to the change in length of said outer primary coating composition, after radiation cure, is less than 2 when said cured compositions are heated from 25°C to stripping temperature.

17. The radiation-curable inner primary coating composition of claim 5 or 13 wherein at least one oligomer is a radiation curable oligomer comprising:

at least one glass coupling moiety;

at least one slip agent moiety; and

at least one radiation-curable moiety.

18. The system of claim 6 or 14 wherein at least one oligomer in said inner primary coating composition is a radiation curable oligomer comprising:

at least one glass coupling moiety;

at least one slip agent moiety; and

at least one radiation-curable moiety.

19. The coated optical glass fiber of claim 7 or 15 wherein said inner primary coating is comprised of a cured radiation-curable inner primary coating composition wherein at least one oligomer is a radiation curable oligomer comprising:

at least one glass coupling moiety;

at least one slip agent moiety; and

at least one radiation-curable moiety.

20. The ribbon assembly of claim 8 or 16 wherein said inner primary coating is comprised of a cured radiation-curable inner primary coating composition wherein at least one oligomer is a radiation curable oligomer comprising:

at least one glass coupling moiety;

at least one slip agent moiety; and

at least one radiation-curable moiety.

21. The radiation-curable inner primary coating composition of claim 5 or 13 additionally comprising a soluble wax that is soluble in said inner primary coating composition.

22. The system of claim 6 or 14 wherein said inner primary coating composition additionally comprises a soluble wax that is soluble in said inner primary coating composition.

23. The coated optical glass fiber of claim 7 or 15 wherein said inner primary coating is comprised of a cured radiation-curable inner primary coating composition containing a soluble wax that is soluble in said inner primary coating.

24. The ribbon assembly of claim 8 or 16 wherein said inner primary coating is comprised of a cured radiation-curable inner primary coating composition containing a soluble wax that is soluble in said inner primary coating.

25. The radiation-curable inner primary coating composition of claim 5 or 13 wherein at least one oligomer is a radiation-curable silicone oligomer comprising:

a silicone compound; and

at least one radiation-curable moiety.

26. The system of claim 6 or 14 wherein at least one oligomer in said inner primary coating composition is a radiation-curable silicone oligomer comprising:

a silicone compound; and

at least one radiation-durable moiety.

27. The coated optical glass fiber of claim 7 or 15 wherein said inner primary coating is comprised of a cured radiation-curable inner primary coating wherein at least one oligomer is a radiation-curable silicone oligomer comprising:

a silicone compound; and

at least one radiation-durable moiety.

28. The ribbon assembly of claim 8 or 16 wherein said inner primary coating is comprised of a cured radiation-curable inner primary coating composition wherein at least one oligomer is a radiation-curable silicone oligomer comprising:

a silicone compound; and

at least one radiation-durable moiety.

29. The radiation-curable inner primary coating composition of claim 5 or 13 additionally containing a non-radiation-curable silicone compound.

30. The system of claim 6 or 14 wherein said inner primary coating composition additionally contains a non-radiation-curable silicone compound.

31. The coated optical glass fiber of claim 7 or 15 wherein said inner primary coating is comprised of a cured radiation-curable inner primary coating composition containing a non-radiation-curable silicone compound.

32. The ribbon assembly of claim 8 or 16 wherein said inner primary coating is comprised of a cured radiation-curable inner primary coating composition containing a non-radiation-curable silicone compound.

33. The radiation-curable inner primary coating composition of claim 5 or 13 wherein said composition comprises a fluorinated component selected from the group consisting of a radiation-curable fluorinated oligomer, a radiation-curable fluorinated monomer and a non-radiation curable fluorinated compound.

34. The system of claim 6 or 14 wherein said inner primary coating composition comprises: a fluorinated component selected from the group consisting of a radiation-curable fluorinated oligomer, a radiation-curable fluorinated monomer and a non-radiation curable fluorinated compound.

35. The coated optical glass fiber of claim 7 or 15 wherein said inner primary coating comprises a fluorinated component selected from the group consisting of a radiation-curable fluorinated oligomer, a radiation-curable fluorinated monomer and a non-radiation curable fluorinated compound.

36. The ribbon assembly of claim 8 or 16 wherein said inner primary coating is comprises a fluorinated component selected from the group consisting of a radiation-curable fluorinated oligomer, a radiation-curable fluorinated monomer and a non-radiation curable fluorinated compound.

37. The radiation-curable inner primary coating composition of claim 5 or 13 wherein at least one oligomer is a radiation curable oligomer comprising:

at least one terminal linear moiety.

38. The system of claim 6 or 14 wherein at least one oligomer in said inner primary coating composition is a radiation curable oligomer comprising:

at least one terminal linear moiety.

39. The coated optical glass fiber of claim 7 or 15 wherein said inner primary coating is comprised of a cured radiation-curable inner primary coating composition wherein at least one oligomer is a radiation curable oligomer comprising:

at least one terminal linear moiety.

40. The ribbon assembly of claim 8 or 16 wherein said inner primary coating is comprised of a cured radiation-curable inner primary coating composition wherein at least one oligomer is a radiation curable oligomer comprising:

at least one terminal linear moiety.

41. The radiation-curable inner primary coating composition of claim 5 or 13 additionally containing a solid lubricant.

42. The system of claim 6 or 14 wherein said inner primary coating composition additionally contains a solid lubricant.

43. The coated optical glass fiber of claim 7 or 15 wherein said inner primary coating is comprised of a cured radiation-curable inner primary coating composition containing a solid lubricant.

44. The ribbon assembly of claim 8 or 16 wherein said inner primary coating is comprised of a cured radiation-curable inner primary coating composition containing a solid lubricant.

45. The radiation-curable inner primary coating composition of claim 5 or 13 wherein at least one oligomer is substantially linear.

46. The system of claim 6 or 14 wherein at least one oligomer in said inner primary coating composition is substantially linear.

47. The coated optical glass fiber of claim 7 or 15 wherein said inner primary coating is comprised of a cured radiation-curable inner primary coating composition wherein at least one oligomer is substantially linear.

48. The ribbon assembly of claim 8 or 16 wherein said inner primary coating is comprised of a cured radiation-curable inner primary coating composition wherein at least one oligomer is substantially linear.

49. The radiation-curable inner primary coating composition of claim 5 or 13 wherein at least one oligomer is a urethane oligomer having at least one polymeric block linked to at least one functional group capable of polymerizing under the influence of radiation via a urethane group, wherein the concentration of said urethane groups is about 4% by weight or less, based on the total weight of said inner primary coating composition.

50. The system of claim 6 or 14 wherein at least one oligomer is a urethane oligomer having at least one polymeric block linked to at least one functional group capable of polymerizing under the influence of radiation via a urethane group, wherein the concentration of said urethane groups is about 4% by weight or less, based on the total weight of said inner primary coating composition.

51. The coated optical glass fiber of claim 7 or 15 wherein said inner primary coating is comprised of a cured radiation-curable inner primary coating composition wherein at least one oligomer is a urethane oligomer having at least one polymeric block linked to at least one functional group capable of polymerizing under the influence of radiation via a urethane group, wherein the concentration of said urethane groups is about 4% by weight or less, based on the total weight of said inner primary coating.

52. The ribbon assembly of claim 8 or 16 wherein said inner primary coating is comprised of a cured radiation-curable inner primary coating composition wherein at least one oligomer is a urethane oligomer having at least one polymeric block linked to at least one functional group capable of polymerizing under the influence of radiation via a urethane group, wherein the concentration of said urethane groups is about 4% by weight or less, based on the total weight of said inner primary coating.

53. The radiation-curable inner primary coating composition of claim 5 or 13 wherein at least one oligomer is comprised of at least one polymeric block linked to at least one functional group capable of polymerizing under the influence of radiation via a linking group, and wherein said at least one polymeric block has a calculated molecular weight of at least about 2000.

54. The system of claim 6 or 14 wherein at least one oligomer is comprised of at least one polymeric block linked to at least one functional group capable of polymerizing under the influence of radiation via a linking group, and wherein said at least one polymeric block has a calculated molecular weight of at least about 2000.

55. The coated optical glass fiber of claim 7 or 15 wherein said inner primary coating is comprised of a cured radiation-curable inner primary coating composition wherein at least one oligomer is comprised of at least one polymeric block linked to at least one functional group capable of polymerizing under the influence of radiation via a linking group, and wherein said at least one polymeric block has a calculated molecular weight of at least about 2000.

56. The ribbon assembly of claim 8 or 16 wherein said inner primary coating is comprised of a cured radiation-curable inner primary coating composition wherein at least one oligomer is comprised of at least one polymeric block linked to at least one functional group capable of polymerizing under the influence of radiation via a linking group, and wherein said at least one polymeric block has a calculated molecular weight of at least about 2000.

57. The radiation-curable inner primary coating composition of claim 5 or 13 containing an oligomer and a monomer diluent, and wherein said oligomer and monomer diluent have a high aromatic content.

58. The system of claim 6 or 14 wherein the inner primary coating composition contains an oligomer and a monomer diluent, and wherein said oligomer and monomer diluent have a high aromatic content.

59. The coated optical glass fiber of claim 7 or 15 wherein said inner primary coating is comprised of a cured radiation-curable inner primary coating containing an oligomer and a monomer diluent, and wherein said oligomer and monomer diluent have a high aromatic content.

60. The ribbon assembly of claim 8 or 16 wherein said inner primary coating is comprised of a cured radiation-curable inner primary coating an oligomer and a monomer diluent, and wherein said oligomer and monomer diluent have a high aromatic content.

61. A radiation-curable composite oligomer having:

at least one glass coupling moiety;

at least one slip agent moiety; and

at least one radiation-curable moiety capable of polymerizing under the influence of radiation;

wherein said glass coupling moiety, slip agent moiety and radiation-curable functional group are each covalently linked to form said composite oligomer.

62. The radiation-curable composite oligomer of claim 61 wherein said glass coupling moiety is comprised of a silane moiety, said slip agent moiety is comprised of a siloxane moiety, and said radiation-curable moiety is comprised of an ethylenically unsaturated moiety.

63. A radiation-curable inner primary coating composition for an optical glass fiber comprising an oligomer having at least one functional group capable of polymerizing under the influence of radiation, and additionally comprising a radiation-curable composite oligomer having:

at least one glass coupling moiety;

at least one slip agent moiety; and

at least one radiation-curable moiety capable of polymerizing under the influence of radiation;

wherein said glass coupling moiety, slip agent moiety and said radiation-curable functional group are each covalently linked to form said composite oligomer.

64. The radiation-curable inner primary coating composition of claim 63 wherein said glass coupling moiety is comprised of a silane moiety, said slip agent moiety is comprised of a siloxane moiety, and said radiation-curable moiety is comprised of an ethylenically unsaturated moiety.

65. A radiation-curable inner primary coating composition for an optical glass fiber comprising an oligomer having at least one functional group capable of polymerizing under the influence of radiation, and additionally comprising a silicone compound containing at least one radiation-curable functional group bound near a terminus of said compound, capable of copolymerizing with said radiation-curable oligomer under the influence of radiation.

66. The radiation-curable inner primary coating composition of claim 65 wherein said silicone compound is a silicone acrylate.

67. A radiation-curable inner primary coating composition for an optical glass fiber comprising an oligomer having at least one functional group capable of polymerizing under the influence of radiation, said composition additionally comprising a fluorinated component selected from the group consisting of a radiation-curable fluorinated oligomer, a radiation-curable fluorinated monomer and a non-radiation curable fluorinated compound.

68. The radiation-curable inner primary coating composition of claim 67 additionally comprising a silicone component selected from the group consisting of a radiation-curable silicone oligomer, a radiation-curable silicone monomer and a radiation-curable silicone compound and a non-radiation curable silicone compound.

69. A radiation-curable inner primary coating composition for an optical glass fiber comprising an oligomer having at least one functional group capable of polymerizing under the influence of radiation, said composition additionally comprising a solid lubricant.

70. A radiation-curable inner primary coating composition for an optical glass fiber comprising an oligomer having at least one functional group capable of polymerizing under the influence of radiation, wherein at least one said oligomer is comprised of a polymeric block linked to said functional group via a urethane group, and the concentration of said urethane groups is about 4% by weight or less, based on the total weight of said composition.

71. A radiation-curable inner primary coating composition for an optical glass fiber comprising an oligomer having at least one functional group capable of polymerizing under the influence of radiation, wherein at least one said oligomer is comprised of a polymer block linked to said functional group via a linking group, and said polymeric block has a calculated molecular weight of at least about 3100.

72. A radiation-curable inner primary coating composition for an optical glass fiber comprising an oligomer and a monomer diluent having at least one functional group capable of polymerizing under the influence of radiation, wherein said oligomer and monomer diluent have a high aromatic content.